REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-8 and 12-15 are pending, with Claims 1-8 amended, Claims 9-11 canceled, and Claims 12-15 added by the present amendment.

In the Official Action, Claims 1-8 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1-8 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fogel (WO 01/50151) in view of Eriksson et al. (U.S. Patent Publication No. 2002/0059453, hereinafter "Eriksson") and Comstock et al. (U.S. Patent Publication No. 2002/0183038, hereinafter "Comstock"); Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Fogel in view of Eriksson; and Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Fogel and Eriksson in view of Knutsson et al. (U.S. Patent Publication No. 2002/0006788, hereinafter "Knutsson").

The rejections of Claims 9-11 are moot in view of the cancellation of Claims 9-11.

Claims 1-8 are amended to more clearly describe a distinctly claimed Applicants' invention. In particular, Claims 1 and 11 are amended to recite features disclosed in Applicants' originally filed specification, including the feature that the service location information is calculated in the apparatus itself.[1] In Applicants' claimed invention, an apparatus served by a base station can share service location information (i.e., correlated information of a location and the identification of the base station) through an ad hoc network with another apparatus that is served by the base station. By having this feature, the apparatus can gather access information from other terminals through the ad hoc network

[1] Specification page 6, line 19 – page 7, line 6 and page 13, line 22 – page 14, line 18.

apart from information stored in the server, thereby achieving an effective and quick mapping of spot area services.

New Claim 12 is directed to an alternative embodiment of Applicants' invention. New Claims 13-15 are directed to a method corresponding to the apparatus recited in Claims 1-8. Support for Applicants' amended and new claims is found in Applicants' originally filed specification. No new matter is added.

Briefly recapitulating, amended Claim 1 is directed to:

> An apparatus used in a mobile communication system with a plurality of wireless base stations, comprising:
>
> an acquiring unit configured to acquire identification information of the plurality of wireless base stations;
>
> a location detecting unit configured to detect a present location of the apparatus on acquiring identification information of the plurality of wireless base stations;
>
> a storing unit configured to store service location information in which the identification information acquired by the acquiring unit is associated with the present location of the apparatus detected by the location detecting unit; and
>
> a location information providing unit configured to calculate a location of the plurality of wireless base stations using the detected present location of the apparatus stored in the storing unit, to provide the calculated location of the plurality of wireless base stations, and to send the service location information calculated in the apparatus itself through an ad hoc network with another apparatus that is the plurality of wireless base stations.

Fogel describes a method for localizing a moving object using a satellite base positioning system and a short range wireless system (e.g., Bluetooth). Localization of a moving object is accomplished using GPS when sufficient satellites are visible. If insufficient satellites are visible, the locations of one or more nearby Bluetooth base stations are used to supplement or replace the GPS computation results to enable more accurate cellular phone localization. In Fogel, device 54 is allocated a unique identification number

and device 54's location is recorded in a look-up table. When queried, device 54 transmits an identification number (instead of or in addition to device 54's location) to cellular phone 61 via return signal 64.[2]

However, as acknowledged by the Official Action, Fogel fails to disclose ***sharing*** of the service location information through a network ***with another apparatus that is served by the wireless base station***. See page 4, lines 9-11 in the Office Action. To cure this deficiency, the Official Action cites Eriksson.

Eriksson describes a method and system in a heterogeneous environment, capable of locating at least one optimal access area or point for supporting one or more access technologies requested by the user. The optimal access points, and alternative options are mapped in accordance with the resulting location, combined requirements and service/application requirements of the communication device. This mapping and other information/recommendations related to the access points are then provided to the communications device for action by the user.[3] In Eriksson, the result of a mapping analysis can be used to identify or select the optimal access points (step 250). The selection of access points is a function of the mapped information. The mapped information may be a subset of the overall available access points, however the selection can be an access point outside the subset.[4]

The Official Action asserts that Eriksson discloses a location information providing unit configured to share the service location information through a network [PAN] with another apparatus that is served by the wireless base station (page 4, lines 9-11 in the Office Action). Applicants traverse and note that Fig. 2 and paragraph [0031] of the Eriksson discloses that position information, information about the network service availability, and

[2] Fogel page 15, lines 6-14.
[3] Eriksson, Abstract.
[4] Eriksson paragraph 28.

combined requirements of the communication device are obtained to prepare mapped information. The mapped information may be used in the network (paragraph [0028]) and then provided to the user to identify an optimal access point (paragraph [0029]). However, the mapped information is never ***shared with another communication device that is served by the network.***

Furthermore, both Fogel and Eriksson fail to disclose that the service location information is ***calculated in the apparatus itself*** and then shared with another device. Paragraph [0025] of Eriksson mentions that the positional information may be provided to the communication device by using GPS or the like, but not that the location information is calculated within the device itself.

Knutsson describes a method and apparatus for providing a range of location dependent information and services to users of wireless devices coupled to a multipoint wireless access network. In Knutsson, an inventory map correlates selected wireless access points with corresponding inventory located proximate to each of the selected access points. A server coupled to the wireless access points and to the inventory map correlates each access to the multipoint wireless access network from a corresponding wireless device with the corresponding inventory to provide at least one location dependent information data unit as well as location dependent services to the wireless device.[5] However, Knuttson does not cure the deficiencies of Fogel and Eriksson.

MPEP §706.02(j) notes that to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a

[5] Knutsson, Abstract.

reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Also, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Without addressing the first two prongs of the test of obviousness, Applicants submit that the Official Action does not present a *prima facie* case of obviousness because both Fogel and Eriksson as well as the remaining references fail to disclose all the features of Applicants' claimed invention.

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Michael E. Monaco
Registration No. 52,041

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

GJM:MEM\dt\pm
I:\ATTY\MM\245452US-AM2.DOC